

## Walleye and Sauger on the Upper Mississippi River

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Fall population surveys of walleye and sauger at Bellevue (Pool 13) and Guttenberg (Pool 11) during the last several years have shown the results of excellent reproduction during 2000, 2001 and 2003, resulting in more fish available for anglers. Data collected in the fall of 2004 showed excellent reproduction for walleye at Bellevue but below a 12 year average for walleye at Guttenberg and sauger at Bellevue and Guttenberg. Creel surveys on Pool 13 during the 2003 open pool summer fishery (May-October) reported a catch of about 2,300 walleye and 4,300 sauger. Of these fish, 1,532 walleye and 3,145 saugers were harvested, the remaining were released. No open pool summer fishery creel survey occurred during May-October 2004. The 2003-2004 winter was mild in the beginning, but from January to early March the tailwaters were ice-covered and no creel survey was conducted. The Bellevue tailwater is closed to fishing from December 1 through March 15 due to a new regulation aimed at decreasing the total annual mortality of sauger from near 80-85% down to a more acceptable level near 50%. The winter creel was moved to Guttenberg to aid in evaluating that regulation. The creel survey at the Guttenberg tailwater reported a catch of about 1,677 walleye and 7,509 sauger during the winter fishing period (December 1 – March 15). Of these fish, 195 walleye and 2,411 sauger were harvested, the remaining were released. This equates to a 3.31 fish/hr catch rate and a 0.94 fish/hr harvest rate for walleye sauger combined. Fall (2004) tailwater fish surveys at Bellevue and Guttenberg indicated the 1998, 1999, and 2002 year-classes of walleyes were below average. The good news is there are strong 2000, 2001, and 2003 year classes of walleye and sauger, which will carry the fishery for the next several years. The 2001 year class is two- to three-fold stronger than any other year class we have documented during the 1992-2004 study period. This year class entered the fishery as 17.5-inch fish during the summer of 2004 and will contribute significantly to the summer and fall fishery of 2005 if water conditions are favorable. The 2003 catch of young-of-the-year walleye and sauger in the Guttenberg tailwaters was the second highest documented during the 1993-2004 period.

Radio telemetry studies are continuing on habitat selection and spawning movements of adult walleye. The greatest amount of movement occurs during the late winter and early spring period when fish are moving to spawning areas. Annual movements of twenty to forty-five miles are common as adult fish move from winter habitats to spawning habitats and then return to summer areas. In recent years, we have noted females tend to move into side channel and backwater lake habitats for 2-3 weeks prior to the spawning period. Water temperatures in these areas are 4-8 degrees warmer than those in the main channel. We believe these mature females use these areas to aid egg maturation prior to the actual spawning act. Three spawning areas have been documented in Pool 13; all have characteristic rock-rubble, gravel, or mussel bed substrates. Additional monitoring of radio tagged fish during the winter period will be undertaken during the next several years to document any changes in winter habitat that may result from changes in wingdam and closing dam construction in lower Pool 13.